WHAT IS CLAIMED IS:

1. A method for transmitting data in encrypted form over a communication link from a transmitter to a receiver comprising, in combination, the steps of:

providing a seed value to both the transmitter and receiver,

generating an identical sequence of pseudo-random key values based on said seed value at both said transmitter and receiver, each new key value in said sequence being produced at a time dependent upon a predetermined characteristic of the data being transmitted over said link,

encrypting the data sent over said link at said transmitter in accordance with the current key value in said sequence, and

decrypting the data sent over said link at said receiver in accordance with the current key value in said sequence.

2. The method set forth in claim 1 wherein the data transmitter over said link is divided into fixed length blocks and wherein a new key value is produced each time a predetermined number of said blocks is transmitted over said link.

3. The method as set forth in claim 2 further including the step of generating a second pseudo random sequence of values to alter said predetermined number of blocks each time said key value changes.

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~~4. The method as set forth in claims 1, 2 or 3 including the~~ steps of:

compressing the data to be transmitted into a compressed format at the transmitter prior to said encrypting step, and

decompressing the data received at said receiver after said ~~decrypting step.~~

5. The method as set forth in claim 1 including the further step of transmitting like random number seed values to both said transmitter and said receiver from a control center to enable said transmitter and receiver to communicate encrypted information utilizing said transmitted seed values.

6. The method of communicating between two remote location in a communciations network supervised by a control location comprising, in combination,

transmitting an encryption key seed value from said control location to each of said remote locations,

storing said encryption key seed value at each of said remote locations,

generating an identical sequence of pseudo-random key values based on said seed value at each of said remote locations, each new key value in said sequence being produced at a time dependent upon a predetermined characteristic of the data being transmitted over said link,

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encrypting the data sent over said link at said transmitter in accordance with the current key value in said sequence, and

decrypting the data sent over said link at said receiver in accordance with the current key value in said sequence.

7. The method of claim 6 further including the step of storing in non-volatile memory at each of said remote locations a serial number which identifies that location, and

transmitting from said control location to each of said remote locations the serial number of at least one other remote location.

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